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ABSTRACT

The aim of this article is to draw a distinction between qualification and competence. Although academic institutions, organizations, companies, and schools are focusing on competence development as the natural answer to new technical and societal demands, no one has provided a satisfactory operational definition of "competence." A dictionary search has shown that different areas of science and the humanities conceive of competence from an analytical point of view, but the Latin word on which the word is based comprises properties of intentionality, adding both dynamic and individual components to the concept. This became the starting point for a study in which a student's competence was examined through Perspective Text Analysis (B. Bierschenk and I. Bierschenck, 1993), an entirely new method for making visible the structural relations of texts. In this study, a teacher of Swedish language and literature at the upper secondary level made visible for himself a conceptual structure that served as a steering instrument for literature study in class and also as the criteria for assessing and grading. He tested a student, who had not been able to qualify to pass the course, and was able to show that the student had produced a structure similar to the one that served as a criterion. The study suggests that by this method it is possible to identify students' competence, which may be deep enough for scoring high on a test despite insufficient qualifications. Competence is found to be beyond qualifications, and a grading system that aims at taking into account every single person's ability, would profit from this new approach. (Contains 2 figures and 23 references.) (Author/SLD)

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Abstract

The aim of this article is to make a distinction between qualification and competence. Although academic institutions, organisations, companies, and schools are focussing upon competence development as the natural answer to new technical and societal demands, no one has succeeded in providing a satisfactory operational definition of 'competence'. A dictionary search has shown that different areas of science and humanities conceive of competence from an analytical point of view, which, in fact, relates to the word 'qualification'. However, the Latin word *com-petens* comprises properties of intentionality, which adds not only a dynamic but also an individual component to the concept. This is the starting-point for a study, in which a student's competence has been examined by means of Perspective Text Analysis, which is an entirely new method for making visible the structural relations of text. In this study, a teacher of Swedish language and literature at upper secondary level makes visible for himself a conceptual structure, which will serve as a steering instrument for literature study in class and also as criteria for assessing and grading. He tests a student, who has not so far proved to qualify for passing the course, and is able to show that this student has produced a similar structure as the one, which served as a criterion. The study concludes that by this method it is possible to identify students' competence, which may be deep enough for scoring high on a test despite insufficient qualifications. Competence is to be found beyond qualifications, and a grading system, which aims at taking into account every single person's ability, would profit from this new approach.

Introduction to the Concept of Competence

The concept of competence is on everybody's lips today. Competence development therefore has become a compulsory element at all sectors of society. It is, however, difficult to see how the organisers of developmental programs would distinguish between competence and the maintenance of knowledge acquisition.

One reason for debating knowledge and competence as fundamental societal concern is of course the information technology progress we are facing and the European and global integration connected with it. It is however not self-evident that Masters of Economy or Engineering, technologists and administrators are the most suited for taking the lead. Instead classical education is now being put forward as important background in recruiting high positions in the industry. A trend is the rediscovery of philosophy. On the whole, the humanities are on their way to reconquer their domains in societal life. The grounds for this is the understanding that enterprising in a changing environment requires insight and strategic thinking, based on qualities beyond technical and economic knowledge and calculations. Therefore the idea has been delivered (Svenstedt, 1999) that a fusion between industrial and classical education is necessary, if the companies shall have a chance to work with a growing European family.

Behind the idea that classical education is a mantra for the industry we may notice a belief that humanistic schooling would work humanising. An industry leader with a humanistic background would then be less disposed to tyrannise over his personnel. But there is nothing that can confirm that studies in the humanities would lead to a human attitude towards whether life, nor work (Kjørup, 1999). If classical education shall have any impact on leadership in a modern society it should be connected with competence (I. Bierschenk, 2000).

Industry leaders and business administrators as well as academics are aware today of the importance of competence development for product quality and company success. The Swedish Employers' Confederation (SAF) is presently supporting an industrial renewal against the background of a conviction that today's education is not longer in pace with time. In their report "För skolan och det livslånga lärandet" (For school and lifelong learning) there is a discussion by among others the researchers Torsten Madsén (1998, p 8) and Thomas FÜRTH (1998, p 23) about some future requirements upon qualification and competence respectively. Madsén refers to an OECD-report and states that qualifications like creativity, ability to take initiatives, taking of responsibility and aptitude for problem solving are crucial in future work life. FÜRTH discusses with the assumption that we are facing a rise in cognitively specified jobs, which requires symbol handling and creativity, and also interactive jobs with demands for e.g. empathetic ability, and also understanding of persons and cultures. By these examples it is not possible to read out that there would be any difference between qualifications, which Madsén talks about, and competence, which FÜRTH talks about. The reason may be that they both conceive of competence from an analytic point of view.

For educational purposes, Wikfeldt (1995) in the name of SAF has compiled a dictionary of various competence concepts, as he calls it. Among other things he uses a definition derived from the Latin word *competentia*, which he translates to 'överensstämmelse' (agreement). Applied within a company this would imply that competence develops in agreement with the opinion of the clients and the business strategy of the company. It is very likely that Wikfeldt has found the derivation from Latin in NE (Swedish National Encyclopaedia), which however denotes

'sammanträffande' (coincidence) as the primary sense of the word, from *co'mpeto*, 'sammanträffa' (coincide), 'vara ägnad' (be suitable, fitted), 'vara kompetent' (be competent), 'räcka till' (be sufficient). The Swedish sense has, according to NE, become 'kunnighet' (knowledge), 'skicklighet' (skill). The Swedish Academy wordlist (SAOL) denotes the same main meaning, but keeps to 'duglighet' (capability), which encompasses more of 'förmåga' (ability) than 'kunnighet' (knowledge).

Swedish association of academics (SACO) has investigated the concept of competence for its purposes. In its report (SACO, 1998, p 5) the concept is being derived from the Latin expression *con petere*, which means 'att medtävla' (to compete) and thus is directly compared with the English word *competition*. Then competence would mean a competition in strengthening the company's position on the market. The author of the report states that "the original meaning shatters the dream of competence development for self-realisation and personal growth" (my translation). SACO thus puts a stress on the fact that it is the needs of the enterprise that are governing and therefore it is talked about a collective competence instead of an individual one. The same outlook is to be found in the not very well thought-out concept of learning organisations.

My Latin dictionary marks that the verb *competo* has the following senses:

1. 'gemensamt eller samtidigt eftersträva något' (jointly or simultaneously aim at something) and 2. a) 'sammanfalla' (coincide), 'vara samtidig med' (be contemporary with), b) 'vara ägnad (duglig, kompetent) till något' (be suitable (capable, competent) for something), 'räcka till' (be sufficient); 'ha nog styrka i något' (have enough strength in something). We may note that SAOL and NE both have remained at sense 2 b), denoting properties, which can be measured and judged on formal analytical grounds. This sense is reflected in 'qualification'. Qualification is something obtained by study of the knowledge and skills of a subject, a profession or a trade. But a competent person must in addition to that be able to produce something, which is not immediately measurable. This non-measurable quality, whatever you may call it, I have termed synthesis (I. Bierschenk, 1999b, p 2-3). It implies ability to information structuring, which cannot directly be derived from the different parts of a knowledge field, attainable through analysis. For a company this may mean that a highly qualified person may be less competent than a less qualified person.

The two organisations mentioned, SAF and SACO, both discuss competence in terms of actions for obtaining results, which connects to the first sense of the word. Whether the competence is associated to persons or organisations, it is the collective that is focussed upon. In both cases the individuals are conceived of as teeth of a larger machinery, in which wholeness within the individual is not asked for but wholeness in the organisation. The business body is meant to function by means of its parts, just like it does in a medical setting. When physicians talk about a competent organ, this means that it is well functioning, i. e. all parts work together, they are co-ordinated. In biology, competence is "the ability of embryonic cells to differentiate into cell types determined by inductors", and in geology "the ability of a wind or water current to transport particles as determined by the diameter of the largest particle transported" (Academic Press, Dictionary of Science & Technology). The citations show that competence is the ability of a natural phenomenon to transform from something particular to something general.

Competence in a natural science sense can be studied as states and state changes. It may seem as if the companies understand competence in this sense. However, since people are carrying the competence (this is in fact not denied by

SACO) one should search for a humanistic sense of the word. The psychological meaning (e.g. The Penguin Dictionary of Psychology) is also expressed as ability: "ability to perform some task or accomplish something". By this definition a qualitative prerequisite within an individual is denoted. This quality is steering the performance, as for example in practising leadership and decision-making, but is not the performance itself. It will therefore not be out of place to mention that Chomsky's (1965) linguistically defined competence-performance – model failed theoretically, because, in practice, performance could not be separated from ability. In this respect Chomsky's concept of competence was a traditional natural science concept. A steering component, which represents intentionality, is lacking. Later minimalistic developments cannot bridge this gap (I. Bierschenk, 1995).

The psychological explanation gives the possibility to interpret the definitions of the common dictionaries in a novel way. The German Duden dictionary (Vol 8, *Herkunfts-wörterbuch*) points to the fact that the verb underlying competence, namely *petere*, has a meaning that presupposes a steering component: 'zu erreichen suchen, streben nach usw' (try to reach, striving towards, etc). Thus the basic sense of the word is a person's intentionality. But this is a phenomenon, which has not been allowed to be incorporated into the natural science models (Kelso, 1995), and, therefore, could be studied only by means of inference, i. e. through performances.

Lennart Sjöberg, professor of psychology, argues for the foundation of an élite university and discusses the qualifications required of the top teachers. Sjöberg puts forward the problem that the Swedish scientific environment is not fit for taking advantage of able people. He writes (Sjöberg, 1999, p 16): "Creative researchers, namely, are troublemakers, who often express their personal opinions and have insufficient patience with mediocrity. They get on the wrong side of the environment and the most natural thing to do is to freeze them out or to get rid of them completely" (my translation). In Sjöberg's view, it seems as if the first element of 'competence', *con* or *com*, stands for 'collision' as in 'conflict', which presupposes that power like mass or energy is working. In fact it means 'coincidence' of various information into a synthesis. The present participle *com-petens* thus stands for the mental dynamics of synthesising an information flow. Synthesis in this sense is something that only humans are able to produce. That individuals in a joint work contribute to the development of a company, as e. g. SACO (1998) puts forward, is self-evident but the competence is only individually founded and maintained. The task of schools and universities is to create those dynamic environments that may promote *com-petens*.

The problem of making competence a working component in education and enterprising to a great extent has to do with the fact that scientists are bound to models, which do not presuppose any intentionality. At the same time practitioners seem to have an intuitive feeling that competence is something more than "power". One of the more famous attempts to get hold of competence in a scientific way by means of something else than intelligence testing is McClelland's (1973). But, as B. Bierschenk (1995) shows in his discussion of various measuring techniques, neither McClelland nor any others have been successful in their resolutions, because the analyses of the experimental outcomes are exclusively made on the basis of content. Content analysis builds on semantics and classification and has nothing to do with intentionality. To study any ability beyond qualifications we must have access to an instrument, which unfolds the perspective of a text producer. By now there is a method, Perspective Text Analysis, which does just that. By this method, the concept of competence for the first time becomes measurable (B. Bierschenk, 1995). The method will be used in the present study.

Competence as Educational Goal

Following the discussion above, it can be stated that competence is not a conscious issue in the schools and universities, although there is an awareness of the actuality of competence development by the general debate in today's society. For sure, knowledge and skills are presented in the curricula as being the goals of all education. By acquiring knowledge the students shall be qualified for life outside school. It is explicitly put forward, however, in work plans and other community documents (I refer especially to Sweden) that all kinds of work done by the staff aim at developing the students' competence at several levels. Education for qualification or for competence is an important choice to make, because the concepts build on quite different principles, which require different teaching methods and modes of instruction. Let me give some examples of the two principles.

The principle of working towards qualification means that the process that the teacher supports is based on linear reasoning. The selection of materials for the courses is made on the basis of quantity, and when the students are asked to perform, the tasks will be analytical. This is an example of the common - and traditional - design, which implies that a subject will be presented in its different parts and that a course will consist of a selection of a certain amount of knowledge or facts. The entire presentation builds on diversification. The response from the student can only be (and is only expected to be) re-production. This is the way in which most teachers work in most subject areas, which has as its consequence that *knowledge* is the only thing that they are able to assess. According to the second principle the instruction will be based on a process, in which the students learn to produce something structural, characteristic, which pre-requires synthesis. This can be obtained by presenting a subject in the form of a problem, so that the students through production (as opposed to re-production) come to see structural relations. This design is based on disparity. By this the teacher comes to know the students' *competence*. Not many teachers work in this way, because it will require a structuring of the subject, which must go beyond the epistemologies of the textbooks, which is too demanding for most of the teachers.

Most of us, who have teaching experience, will probably agree that the principles of a method aiming at developing competence the way I have sketched it is far more interesting and more in line with how we want the students to function after school. But at the same time it brings the matter of testing to a head - and of course also grading. A teacher who is working competence oriented will most likely be supported by the management of the school, at least to the extent that the instructional design at the surface may seem in line with some modern ideas. But as soon as it comes to the critical point of making a test, which is in agreement with this design, that is a test, which measures competence, then the management reacts negatively. I myself have experienced that the headmaster as well as colleagues and students have wanted to stop a test, which was constructed according to the new criterion related Swedish grading system (I. Bierschenk, 1998b). Moreover, it turned out that most of the students did better on this kind of test than on an ordinary (fact based) one, so there is no reason to avoid it.

I have carried out an experiment with the purpose to study the competence with which students at upper secondary level apprehend a modern concept when transformed into a model of society narrated in novels and on video-displayed scenes (I. Bierschenk, 1997, 1998a). By way of the design of these studies I could show that competence is separated from qualification and that four classes (two natural science classes, one social science, and one aesthetics class) did not differ in competence.

This was an astonishing result and to many people concerned it was puzzling. The reason for putting instructional results to a head was the way of measuring them.

Instead of differentiating between the classes the concepts became differentiated through the students' responses in relation to their degree of difficulty. Without referring to statistics, which I have reported on elsewhere (I. Bierschenk, 1997, Table 4), I would like to mention that by means of this test I have developed a scale, which denotes four evolutionary steps or levels. These can be used to steer the teaching. The modern concepts used were levelled in the following way, and are listed according to progressive degree of difficulty:

Level 1: behaviourism, surrealism;

 existentialism, futurism, provincialism, psycho-analysis

Level 2: magic realism, romanticism, social realism

Level 3: functionalism, time

Level 4: expressionism, Gestalt, idealism of the commons, war

The test underlying the scale, developed during a long time and builds on both studies of sources as well as experiments (a detailed account of all the steps is given in I. Bierschenk, 1997). With these studies as a frame of reference I am convinced that the text materials used in school for tasks and testing have to be extremely well selected or constructed to correspond to the structure of the desired level if it is competence that is the aim of the teaching.

In connection with another study I have introduced the concept material directedness (I. Bierschenk, 1999c) and have also showed the way in which such a new paradigm may be realised in teaching. In this study I discussed the consequences the knowledge of a material structure may have for the guiding of young peoples' reading of pure literature. Having knowledge of a theoretical concept, in this case the behaviourism, as scientific idea is not enough, though, to be able to apprehend it when transformed into a novel about society.

In another study (I. Bierschenk, 2000) I take my point of departure in a text, which is well suited for studying the futurism in a social sense. This time I wanted to know the extent, to which a number of novels could best be said to be educating, defined as socially and democratically grounded competence. In this study I show that not just any novel is educating (in the sense of developing competence) in relation to the concept futurism. Thus the teachers gets a structural instrument, which steers the quality of his/her teaching.

The newly introduced criterion related grading system in Sweden actually requires a clear definition of which structure the student shall master in order to reach a certain grade. Instead of letting the student read some selected texts and judge the understanding he/she shows as a whole, it would be easy if the selection of texts could be made from out of structurally anchored criteria. With reference to my discussion I will demonstrate the way in which the experienced teacher's structurally anchored concepts may steer a students' task and the respect to which the students' personal conceptual structure can be proved after the completion of the task. If structures can be made visible and compared, then we are able to specify whether the student's structure satisfactorily corresponds to that of the teacher and thus meet the criteria of the desired level. The experiment reported in the following is an example of a way of steering a mental process by an evident conceptual structure.

Method

Educational Context and Materials

A teacher of Swedish has in collaboration with the subject teachers of history or civics terminated a course about the epoch of Enlightenment and wants to deepen the studies by a modern literary theme, which connects to the time studied. Certain students liked Voltaire's "Candide" and now would like to read a 20th century war novel. The question is which novel to choose to be sure that the war as an idea shall be understood. The teacher tries to introduce the war as a matter of a human dilemma, which not very easily can be grasped only by going out on a battlefield. War as an idea has further dimensions, which among others contain concepts like chaos, conflict, and anxiety. Just like the expressionist poets and artists the conscious war novelist works with deep structural relations, which concern man and his existential concerns. The students, who have learnt to formulate a stringent action fable, puts the teacher on a test by asking him to formulate such a fable for the general war novel. The teacher thinks it over for a while, searches his idea store, remembers a formulation made by an expert, namely Machiavelli (reference unknown), and presents the following answer:

I think the nearest way to reach Paradise should be to get to know the way to Hell with the purpose to avoid it.

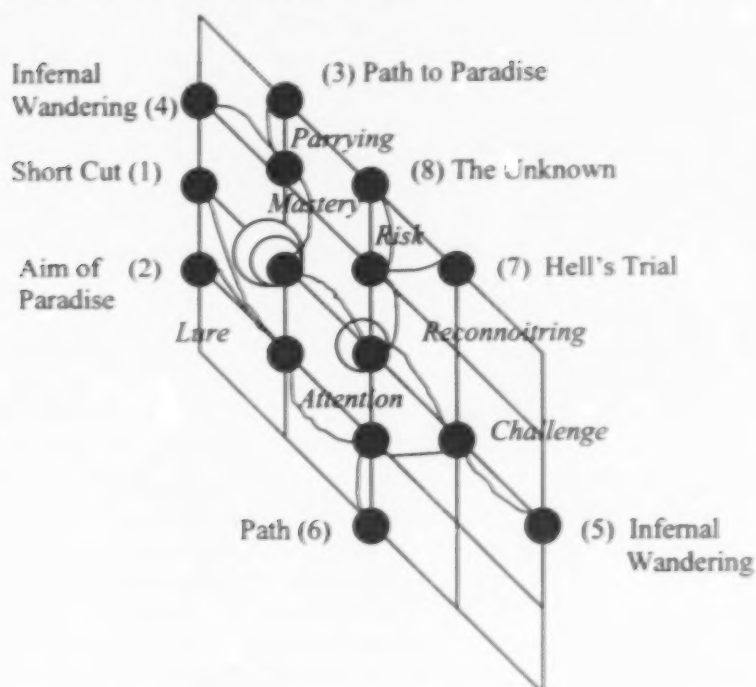
After that he gives the students the task to choose between some of the most wellknown war novels, "Im Westen nicht neues" (On the Western front nothing new) by Erich Maria Remarque, "Unknown soldier" by Väinö Linna and "Johnny get your gun" by Dalton Trumbo. He incites the students to reflect over what he has said and be prepared to make an account of their understanding of the novel after a couple of weeks. "I will think your answers over very carefully, to see whether the deep meaning of what I told you is in your thoughts after the reading", he said. "If they aren't there, you haven't passed the test." And then the process started.

A Method for Analysis of Structure

In this situation, the teacher has to find out which structure he will make the basis for examining the students. He uses Perspective Text Analysis, which is a method for measuring the dynamics of the conceptual structure underlying natural texts (see Bierschenk & Bierschenk, 1993; Bierschenk, Bierschenk & Helmersson, 1996; B. Bierschenk, 1997; I. Bierschenk, 1999a). Perspective Text Analysis has been developed for bringing out the synthesis of texts. The method builds on the assumption that the structural aspects are formed by relations that cannot be decoded directly from the textual surface. This implies that performance rules are getting very little weight. The perspective on a subject thus emerging is called competence. I will not give any more theoretical or other details of the method and its functioning, because it would be out of place in this context.

The result of a perspective analysis can be given in the shape of a holotop or a holophor. For this presentation the holotop is chosen, which represents the structure in a regular net. To get some understanding of what the teacher did at this moment of processing, we will follow him in his work. After having finished the computer-aided analysis the teacher drew up the result in a grid and named the nodes (see Figure 1).

Figure 1.

Conceptual Structure of War: Teacher

(1)–(8) = surface concepts

italic face = structural concepts

The grid represents the structuring process in the form of a snake trying to bite itself in his tail (end). Before it gets to the end (of text) it progresses by making rhythmical movements generating a spherical form, which is basically helical. Thus the surface concepts at the borders are being related by transformations to deeper lying concepts. As the snake is winding forward from left to right to reach its tail the resulting structure is a fusion of conceptual information, a synthesis, which finally has been made visible. (The number of rings symbolises the structural depth.)

Now, it will be a matter of naming the structure that the teacher has produced by his text. He must of course know what he has thought out, otherwise he doesn't know how to examine his students. We will follow his naming process, where he reasons about the concepts and how they relate to each other. For the sake of simplicity the readers will be able to study the complete figure from the start.

Teacher: I am standing here like Hercules at the crossroads. For sure the concepts Path to Paradise and Infernal Wandering are two extremes, which I have to control. I want one thing but must recognise the other, so what to do? *Parrying* seems to be the most suitable. Then I have got a Short Cut and an Aim of Paradise, which are fused into something structural. If paradise is what I dream of to the extent, that it makes me choose a short cut, then it has a certain *Lure*, no doubt.

Now it is a matter of keeping the track, so that I don't end up in disaster. Well, we are all on the same Path, aren't we. I must see to it that my journey will be as good

as possible and keep the lure in check with *Attention*. The infernal wandering I am making, I may like Dante really conceive of as a *Challenge*.

It is a Hell's Trial to grope forwards through The Unknown but since my aim is decided, I am willing to take the *Risk* it means to go on. Therefore, the challenge becomes too strong and I try to see how the land lies to manage to take the plunge. *Reconnoitring* is really a dangerous business, but I have to learn the road carefully. When I know it sufficiently well, so that I can parry both sides of the thing, so to speak, then I have managed the balancing.

The final point I will name *Mastery*. Thus the war is paradise and hell as well, just like human life, and therefore War as a structural concept has the same meaning as the word conflict, the aim of which has to be solved. But conflict in this sense means disparity, to perceive surface and depth simultaneously. To master conceptual disparity, the way it is synthesised in a text, is what I call competent in this context.

The Examination Procedure

When the students returned after a couple of weeks, they were given the opportunity to show their way of understanding the war novel. The teacher considered the conceptual structure he had produced and decided to give the students three concepts from the graph to write about. The three concepts finally were *Parrying*, *Challenge* and *Risk*, which on the one hand are representing end concepts in a sub structure and are not too deeply embedded, on the other. The teacher meant that theses three should be both easy to comprehend and appealing. Is there any deeper insight present in the text producers, it will show up in the analysis.

Both girls and boys had read a war novel and after having taken their seat and taken out their writing materials, they got a sheet of paper, on which their examination task was formulated as follows: "Explain the book you have read by means of the following three words ...".

The result was the expected one. Accounts of the basic idea of the novel, without use of the ordinary categories of literary analysis. The answers seemed more interesting than usual. One of the students was especially interesting to the teacher. It was one of the boys, who had neglected schoolwork for a long time, had been absent most of the lessons and had hardly shown any results. To what degree had he managed? Was there any structure in his text that could motivate his passing the course? He handed in the essay already after fifteen minutes. The teacher inspected his text and found it "fairly good", but he knew that the inner dynamics of the text, which shows the conceptual relations, could only be tested by Perspective Text Analysis. The teacher started the analysis procedure and was very eager to know what the structure really looked like. The final result would then be compared with the structure he produced initially, the answer.

Results

Student's Response

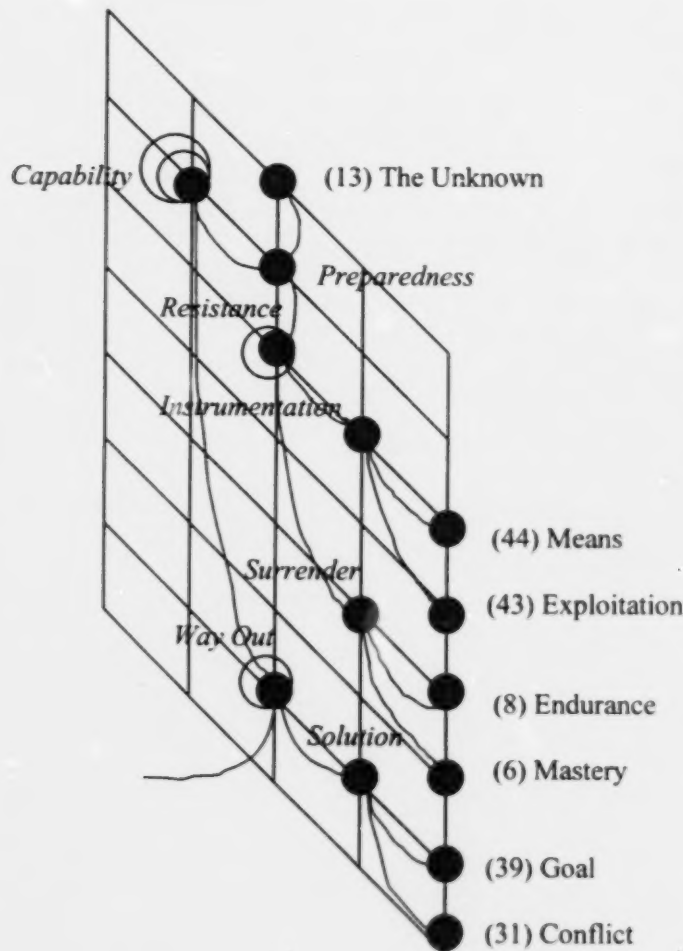
"I don't know where to begin. One gets the impression that challenge is the best suited. In principle the book is about how a war automates and forms its soldier. How they suppress their feelings, on the whole to get along with the war without getting mad. How they have to take risks to survive. They even had to think over if they may be shot in the stomach, as too much food makes the risk of dying higher. They had to beat their friends, recruits, to guard them when they are hit by front madness. To save their awareness from madness they must suppress themselves. To distinguish between war and reality. As even the war takes place in reality they must

have something else to lean back to. The humour, maybe the most important thing to a soldier, besides good food and ammunition, is the best way for them to handle the sudden death of their companions, the steadily disappearing feeling of security. They have to live with being a robot, a soldier."

The prototypical text that the teacher himself produced took up 4 x 4 squares on the holograph, since the text contains only one sentence. As we see, the student's text is a lot longer and has produced a holograph of 23 x 8 squares, which is too big in size to be exposed here in a meaningful way. Instead Figure 2 will give about 1/6 of the holograph, namely the part of it showing how the last groupings are summarising the deepest embedded invariant. This part of the holograph reveals what the student in fact has understood from the inherent structure of the novel, since the synthesis lies in the process that the snake is producing. (The rings in this figure only tell about the relationship of the concepts.)

Figure 2.

Conceptual Structure of War: Student



Stating that war is about a conflict proceeding towards a *Solution* is well in line with what the teacher said to explain his graph. The solution becomes part of the way out of the misery. *Mastery* is a surface concept in the student's structure, which means that it is not difficult to apprehend. The war as *Resistance* against The Unknown breeds, after all the hardships, a *Preparedness* to find ways out of the infernal wandering. The final point quite precisely is *Capability*, which, referring to my introductory discussion, clearly expresses the competence being a result of balancing "between war and reality", as the student writes. The teacher only needs to study this very corner of the holograph to be able to assess the student's answer to the examination query. It totally meets the criterion, which the teacher himself had decided. Could it be better?

Discussion

Educational Goals

This student has not in any way shown any qualifications in reading, understanding, discussing, and writing texts. Moreover, he has not been but sporadically present. Since he is an authentic case, I know that he did not pass the preceding (first) course. At the present test, for which the conceptual relations really were under control, the student has done very well. Thus we can observe that absence from class has not had any importance. One should not doubt his competence. However, according to the curricula, he is expected to make literary analyses, which is a goal of quality, but in addition "have acquired and have knowledge of important Swedish, Nordic and international literary works and authorship from various times and epochs ..." (Skolverket, 1999). This writing stresses a quantitative aspect, that is irrespective of the ambition with which texts are studied, the quotation indicates far more than one to cover the intent of the formulation. This is a goal of qualification, no doubt.

As has been noticed, almost all planning of teaching is made with qualification as the goal. Of course also in the subject of Swedish. A great import is put on reading in connection with the study of the history of literature, not only because the goals may be interpreted that way but also because teachers of Swedish are occupied with amounts. The criteria for selecting are highly subjective. This is why I believe that my study may have an impact.

Even though the student has shown competence, we do not know of his qualifications. At the same time, students, who through presence in class and hard work manage to prove qualifications on knowledge tests, need not have the competence in comprehending a certain depth. This is self-evident actually, but the problem is that the entire question of assessing and grading rests on a very soft ground, because "structural depth", "high degree of difficulty", and consequently "very well passed" (highest score) are being just intuitively assessed, since criteria are so far missing.

Perspective Text Analysis for the first time gives us the possibility to get to know the structure in various text materials. If the teachers were given an instrument for measuring the structure of texts, the diversified literature selection would not be needed. As is the case now, the teacher hopes that some of the texts selected will have learning effects and as a result enrich the qualifications in acquiring pure literature and other texts. It would be even better if materials and work tasks could be constructed beforehand according to certain specific structure principles (theory of construction of materials for non-technical disciplines). In my opinion, teaching would re-organise itself, if the schools got a method and an instrument, by means of

which they could make clear which structure is the desired one and measure the learning of it. What an economy it would be!

Perspective Text Analysis and the Individual

What makes Perspective Text Analysis the most suitable method in this context? As Figure 1 and 2 have shown, a text develops in that the snake's dynamical movements steers it forwards. The concepts thus emerging constitute the steering factors, i.e. they form the frames of an individual's conceptual prerequisites from moment to moment. It is every single individual's or, as in this case, every single student's experiential background that in a unique fashion is governing which conceptual structure may develop. For the teaching this means that the teacher gets an instrument for changing the student's experience and following how changes in the conceptualisation come about against this background. For, a conceptual world cannot be imposed normatively, if the purpose is that the individuals shall integrate something conceptual in their cognitive sphere.

In the Swedish school system, it is stressed that it is the single student's wishes and prerequisites that should be focussed upon both in teaching and grading. It implies that the thinking around mean values is out of place. According to this, the experimentation in schools was earlier based on statistical sampling of students, classes, and schools. It was important to avoid individually specific features, which were considered sources of error. In the new system we do not have to work with the concepts of average student, average score, or group similarity but instead consider the single student's behaviour in a situation. For this development there is a need for a method, which does not presuppose statistics.

With Perspective Text Analysis every individual constitutes its own unit of analysis and not several individuals, groups, or classes. The method extracts that, which is unique within every person but at the same time that, which is common. Both the teacher and the student produced a structure. The two individuals did not develop a similar pattern but the structures could still be regarded similar on the basis of an invariant concept configuration. In this way the method can represent the individual without losing the possibilities of comparing. A prerequisite of the result is of course that the context be defined, which then constitutes the point of reference for studies of change, for example competence development.

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